



116 West Main Street, Suite 201
St. Charles, Illinois 60174
Phone: 630.443.7755
Fax: 630.443.0533
www.wbkengineering.com

WILLS BURKE KELSEY ASSOCIATES

March 21, 2012

Ms. Kathy Chernich, Chief
US Army Corps of Engineers Chicago District
Regulatory Branch – East Permits and Enforcement Section
111 North Canal Street, Suite 600
Chicago, Illinois 60606-7206

Subject: Wetland Delineation Report for the Elgin Community College
USACE Project No. LRC-2010-728
WBK Project No. 10-0004

Dear Ms. Chernich;

On behalf of our client, Elgin Community College (ECC), Wills Burke Kelsey Associates, Ltd. (WBK) is submitting a wetland delineation report for portions of the ECC campus including the West Parking Lot expansion area in Elgin, Illinois. The project area is located in the SW¼ of Section 21, Township 41N, Range 8E in Elgin, Kane County, Illinois (Latitude: 42.017201° N, Longitude: 88.328182° W). WBK completed a delineation of wetlands at Elgin Community College in three separate project areas. One of the areas (adjacent to the West Parking Lot) is part of resolution of the violation of the West Parking Lot Expansion. The two remaining project areas are potential future projects for the College.

The delineation is based on information obtained during multiple site visits and through various maps and aerial photographs. WBK used the following sources of information:

- USGS Topographic Map – Elgin Quadrangle, 1992
- US Fish and Wildlife Service National Wetland Inventory – Elgin Quadrangle, 1980
- Kane County Advanced Identification Study, August 2004
- USDA SSURGO Soil Data, February 2010
- USGS Geologic Survey Hydrologic Investigations Atlas Map – Elgin Quadrangle (HA-147, 1965)
- Digital Flood Insurance Rate map – Kane County, Panel 17089C0164H, effective 2009
- Aerial Photographs from Photomapper for 2001, 2002, 2004, 2006, and 2008
- Illinois Bulletin No. IL 190-8-4 Wetland Mapping Conventions prepared by the Natural Resources Conservation Service (NRCS) dated December 18, 1997
- ECC Visual and Performing Arts Center Wetland Mitigation Plan prepared by Civil Design Group, Inc. dated 10-31-91

This report was completed to delineate wetlands along Spartan Drive and on the west portion of the campus. The identified three wetlands tributary to Otter Creek and two waters that appear to be under the jurisdiction of the US Army Corps of Engineers under Section 404 of the Clean Water Act. WBK also identified one wetland and two waters that appear to be isolated and under the jurisdiction of City of Elgin.

Based on historical information, aerial photographs, soil maps, and pre-construction topography, WBK has prepared a pre-impact delineation (See Exhibit WI in the attached report). WBK

contends that the total impact from construction activities of expanding the west parking lot and excavating a temporary stormwater detention basin is 1.78 acres. To compensate for some of the impacts to Wetland 4, WBK proposes removing fill, restoring wetlands, and enhancing non-wetland hydric soils (Table 1). The large fill pile (0.32 acres) at the northwest end of the temporary basin will be removed and restored to wetland conditions. The portion of the temporary basin (adjacent to the fill pile) that was excavated out of wetland (0.27 ac) will be restored to wetland conditions. The remaining bottom of the temporary basin (1.0 acres) within the mapped hydric soils will be enhanced for credit at a 0.25:1 ratio (0.25 acres of credit). The remaining impact to be mitigated is 0.94 acres. At a 5:1, ratio as previously agreed upon, a total of 4.7 acres of mitigation must be provided. Once the final mitigation requirement is decided, ECC will determine the means of proposed mitigation.

Table 1: Wetland Impact and Proposed Mitigation

	Area (ac)			
	Impact	Restoration	Ratio	Remaining Mitigation Required
Total Wetland Impact	1.78	-		1.78
Impacted Wetland to be Restored	-	0.59	1:1	1.19
Area to be Enhanced (0.25:1 Ratio)	-	1.0	0.25:1	0.94
Mitigation to be Provided (5:1 Ratio)	0.94	-	5:1	4.70

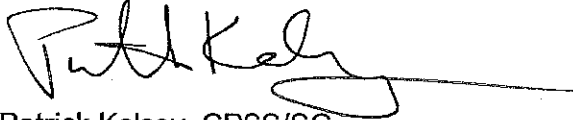
WBK is submitting this delineation report for USACE review and boundary concurrence as part of the resolution of the violation for impacts to a wetland from expansion of the West Parking Lot. After the final mitigation requirement is decided, ECC will propose mitigation to resolve the violation of the West Parking Lot Expansion.

Please feel free to contact me at 630-443-7755 if you have any questions regarding the attached report.

Sincerely,



Patrick VerHalen, CPESC
Soil Scientist



Patrick Kelsey, CPSS/SC
Executive Vice President

Encl.

Cc: Paul Dawson, PE, ECC
Chris Lindley, WBK

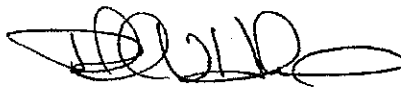
**ELGIN COMMUNITY COLLEGE
ELGIN, ILLINOIS
Wetland Assessment Report**

Prepared for:

**ELGIN COMMUNITY COLLEGE
1700 SPARTAN DRIVE
ELGIN, IL 60012**

March 15, 2012

WBK Project Number 10-0004



Patrick VerHalen, CPESC
Qualified Wetland Review Specialist #W-065



WILLS BURKE KELSEY ASSOCIATES
116 West Main Street, Suite 201
St. Charles, Illinois 60174-1854
Phone: 630-443-7755 Fax: 630-443-0533
www.wbkengineering.com

TITLE

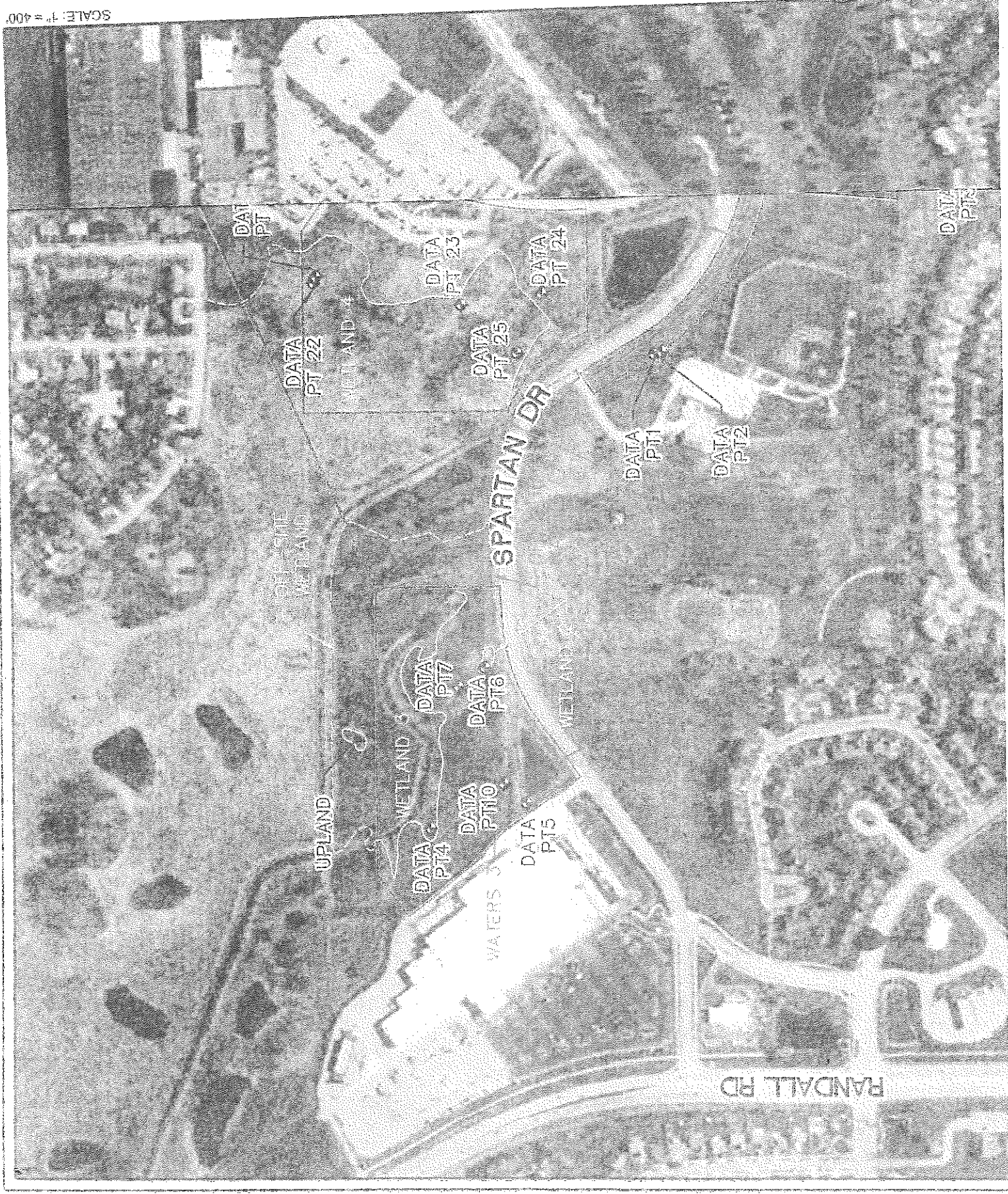
NEED AN AERIAL
WITH PLSTHMS FILE

PRE-FIL

ERIALS EXPRESS 2009

SCALE: 1" = 400'

JOB#	DWN.	EAM	CHKD.	PVH



are included in Appendix C. See Table 1 below for the size and quality of the on-site aquatic resources.

Table 1: On-site Aquatic Resources

DELINEATED AREA	DATA POINT	TYPE	JURISDICTION	SIZE (Ac)	C-value	FQI
Waters 1	1	Otter Creek	USACE	1.07	3.3	11.3
Waters 2	5	Stormwater Basin	Elgin	0.65	3.0	7.3
Waters 3	10	Pond	Elgin	0.06	1.0	1.0
Wetland 1	3	Swale	Elgin	0.01	0	0
Wetland 2	6	Depression	USACE	0.07	2.5	6.1
Wetland 3	4	Marsh	USACE	3.51	4.4	18.6
Wetland 4	Data Point	Marsh	USACE	7.49		
TOTAL				12.86		

Each plant species is rated on a scale of 0 to 10, 0-representing non-native or noxious species commonly found in a variety of habitats, and 10 representing plants found only under specific ecological conditions. The Coefficient of Conservatism, C-value, of plants found in communities can give some insight as to the overall quality or value of the community. Communities containing an abundance of plants with a low C-value suggest that these communities have been disturbed in the past. Communities containing an abundance of plants with a high C-value suggest that specific ecological conditions necessary for their survival are intact thus disturbance is probably minimal and the community maintains at least some of its original integrity.

The following is a brief description of each identified data point. A list of the plant species observed and their corresponding indicator categories is listed for each wetland in Appendix C. A coefficient of conservatism (C-value) is also included for each plant species. Swink and Wilhelm established C-values to quantify a community's native attributes for comparative purposes. This analysis is required by both the USACE Chicago District and Kane County.

WATERS 1

Waters 1 is located along the south side of Spartan Drive and flows to the northwest as Otter Creek. As part of the Spartan Drive Extension project (completed in 2008), Waters 1 was impacted to create a crossing over the creek. Waters 1 continues to the northwest and eventually to the west off-site and eventually crosses under Randall Road. Between the two project areas north of Spartan Drive, Waters 1 runs between Wetland 3 and Wetland 4.

WATERS 2

Waters 2 is a stormwater detention basin that was constructed as part of the former Lowes building north of Spartan Drive. Waters 2 drains to the north through a flared end section into Waters 3. The detention basin is dominated by Broadleaf Cattail (*Typha laterifolia*) due to lack of maintenance.

WATERS 3

Waters 3 is located in a small depression just north of Waters 2. It appears that Waters 3 has formed from the discharge of Waters 2. The area is dominated by Narrow Leaved Cattail (*Typha angustifolia*). Waters 3 drains to the north by overland flow.

WETLAND 1

Wetland 1 is located south of the building on the south side of Spartan Drive at Renner Drive. The wetland appears to be a small, linear depression that receives stormwater runoff from surrounding areas. The area was partially vegetated with Reed Canary Grass (*Phalaris arundinacea*) and Common Burdock (*Arctium minus*) being the dominant species. WBK determined that hydrophytic vegetation was present by meeting the Dominance Test. The area is mapped as Drummer silty clay loam, a hydric soil. WBK confirmed the mapped soil type and observed the Depleted Matrix (F3) hydric soil indicator. WBK observed the Drift Deposits (B3), Sparsely Vegetated Concave Surface (D8), Geomorphic Position (D2), and FAC-Neutral Test (D5) Wetland Hydrology Indicators indicating that wetland hydrology was present.

WETLAND 2

Wetland 2 is located just north of Spartan Drive in the western project area. The wetland is a closed depression that may have been filled as part of permitted impacts of the Spartan Drive Extension. The wetland appears to drain to the north through a swale that is connected to Wetland 3. The swale did not meet wetland criteria (Data Point 7). The wetland was dominated by Red Cedar (*Juniperus virginiana crebra*), Silver Maple (*Acer saccharinum*), Dark Green Rush (*Scirpus atrovirens*), Reed Canary Grass, and Narrow-Leaved Cattail (*Typha angustifolia*). Hydrophytic Vegetation was present as the Dominance Test and Prevalence Index requirements were met. The mapped soil is Drummer silty clay loam, a hydric soil. WBK confirmed the mapped soil type and observed the Depleted Matrix (F3) hydric soil indicator. WBK observed the Surface Water (A1), Saturation (A3), Geomorphic Position (D2), and FAC-Neutral Test (D5) Wetland Hydrology Indicators indicating that wetland hydrology was present.

WETLAND 3

Wetland 3 is located north of Spartan Drive in the western project area. A portion of this wetland was maintained as part of the Spartan Meadows Golf Course and has reverted to wetland due to the lack of intense maintenance that golf courses require. Wetland 3 extends off-site to the north and east and is part of the southern portion of a large wetland complex that includes a Otter Creek and a tributary to Otter Creek. Wetland 3 is not mapped in the Kane County ADID as High Functional Value Wetland. Wetland 3 has a native mean C-value of 4.4 and an FQI of 18.8. This wetland meets the USACE and Kane County Stormwater Ordinance (as administered by the City of Elgin) definition of a High Quality Aquatic Resource (HQAR). The dominant vegetation of the wetland was Bent Grass (*Agrostis alba palustris*). All of the vegetation identified by WBK is FAC or wetter. Hydrophytic Vegetation was present as the Dominance Test and Prevalence Index requirements were met. The mapped soil is Houghton Muck, a hydric soil. WBK observed a disturbed soil that was more similar to Drummer silty clay loam, a hydric soil and observed the Depleted Dark Surface (F7) hydric soil indicator. WBK observed the Geomorphic Position (D2) and FAC-Neutral Test (D5) Wetland Hydrology Indicators indicating that wetland hydrology was present. WBK observed saturated conditions north of the creek within the project boundaries.

WETLAND 4

Wetland 4 is located west of the parking lots on the west side of Renner Drive. Wetland 4 is part of the larger wetland complex that is mapped as High Functional Value Wetland in the Kane County ADID. The boundaries of the wetland have been delineated by WBK using historical information. This wetland has been impacted through authorized and unauthorized actions since 1990. In 1991, ECC secured a permit from the USACE to impact 3.88 acres of Wetland 4 for the purpose of expanding the campus with buildings, Renner Drive, and parking lots on the west side of campus. The elevation of the wetland boundary was determined to be 806.0' at that time by Civil Design Group, Inc. In spring of 2010, ECC had a portion of the west parking lot expanded and impacted this wetland. The boundary of the wetland prior to the expansion was not surveyed.

To determine the pre-impact boundary, WBK reviewed the soils map, historic delineations for the area, the US Fish and Wildlife National Wetlands Inventory, historic aerial photographs, and existing conditions of the site. The area where the parking lot extension was constructed is mapped as Drummer silty clay loam, a hydric soil. ECC has provided WBK with a delineation completed in 2009 by Planning Resources, Inc. (PRI) for the small stormwater basin to the north of the wetland. The boundaries of the delineation are adjacent to the project area for this project. The USACE provided WBK with an exhibit for the ECC Visual and Performing Arts Center Wetland Mitigation Plan prepared by Civil Design Group, Inc. dated 10-31-91. No additional information was available indicating the status of the wetlands post-construction. The US Fish and Wildlife (USFWS) National Wetlands Inventory (NWI) indicates that part of a mapped PEMCd Wetland (Palustrine, Emergent, Seasonal, Partially drained/ditched) extends into the parking lot extension. Most of the area of the temporary stormwater basin just south of the expanded parking lot is within the boundary of the PEMCd wetland. The eastern edge of the NWI wetland line roughly follows the 803' contour.

WBK then reviewed the aerial photographs from 2001, 2002, 2004, 2006, and 2008. In each aerial photograph, WBK delineated the wetland boundary utilizing the guidance outlined in the Illinois Bulletin No. IL 190-8-4 Wetland Mapping Conventions prepared by the Natural Resources Conservation Service (NRCS) dated December 18, 1997. The aerial photographs with the delineations are included in Appendix D.

WBK surveyed the elevation at several locations along the wetland boundary to determine the approximate elevation of the pre-impact wetland limits. The outlet of the stormwater basin at the corner of Spartan and Renner Drives is 799.48'. The elevation of the off-site discharge of Wetland 4 to Otter Creek at the southwest corner of the project area along Spartan Drive is 800.84'. The highest elevation of the wetland boundary at the toe of the parking lot embankment is 805.4' and slopes to the south to 802.27' near the temporary stormwater basin. North of the project area near the constructed stormwater basin, the elevation of the wetland boundary is 804.14'. Based on the elevation differences of the wetland boundary in areas that have not been impacted by the parking lot expansion, the approximate elevation of the impacted wetland boundary should be between 805' to the north and 802.3'.

Each of the wetland boundaries and delineated lines reviewed by WBK have been shown on Exhibit WI (Appendix E). Based on the information reviewed, WBK delineated the boundary of the pre-impact wetland. The pre-impact limits of Wetland 4 are shown on the Aerial Photograph Exhibit (Appendix A).

REFERENCE MATERIALS

The following reference materials were reviewed and utilized to assist in the field reconnaissance and the completion of this report. Exhibits 1-8 are included in Appendix A and the data sheets required by the USACE are included in Appendix B of this report.

LOCATION

The project area is located on the north and south sides of Spartan Drive between Randall Road and McLean Blvd in Elgin, Illinois (Exhibit 1). According to the USGS Topography Map of the Elgin Quadrangle of 1992, project area is located in the SW¼ of Section 21, Township 41N, Range 8E in Kane County, Illinois (Latitude: 42.017201° N, Longitude: 88.328182° W).

NATIONAL WETLAND INVENTORY

The National Wetland Inventory (NWI) of 1980 Elgin Quadrangle indicates a wetland on site (Exhibit 2A). One palustrine, emergent, seasonal, partially drained/ditched wetland (PEMCd) is located within the project area west of Renner Drive and extending west towards Randall Road. It is important to note that the NWI is only a large-scale guide and actual wetland types and locations may vary.

KANE COUNTY ADVANCED IDENTIFICATION

The Kane County Advanced Identification (ADID) Study dated August 2004 indicates the presence of a High Function Value wetland located within the project area west of Renner Drive (Exhibit 2B). The ADID Study also identifies an unrated stream in the western project area. It is important to note that the ADID is only a guide and actual jurisdictional wetland boundaries must be field delineated.

SOIL SURVEY

The USDA SSURGO Soil Data (February 2010) was reviewed for hydric soils on site (Exhibit 3). Hydric soils may indicate wetland conditions exist. The following soils are mapped within the project boundaries.

103A	-	Houghton muck – Hydric
149A	-	Brenton silt loam
152A	-	Drummer silty clay loam – Hydric
318C2	-	Lorenzo loam
325B	-	Dresden silt loam
663B	-	Clare silt loam

HYDROLOGIC ATLAS

The US Geological Survey Hydrologic Investigations Atlas Map of the Elgin Quadrangle (HA-147, 1965) was reviewed to determine the location of regulatory floodplain on the site. The map indicates that no portion of the project has been flooded during 1952, 1954, 1957, 1960, or 1962 (Exhibit 4). The presence of floodplain can be indicative of wetland hydrology.

FLOOD INSURANCE RATE MAP

The Digital Flood Insurance Rate Map (D-FIRM), Kane County, Illinois, Community Panel Number 17089C0164H effective date, August 2009, was reviewed to determine the location

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: ECC - West Area City/County: Elgin Sampling Date: 5-17-11
 Applicant/Owner: Elgin Community College State: IL Sampling Point: 4
 Investigator(s): Patrick VerHalen Section, Township, Range: S21, T41N, R83
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave
 Slope (%): 1% Lat: 42.017201 N Long: 88.328182 W Datum: _____
 Soil Map Unit Name: Houghton Muck NWI or WWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
Sapling/Shrub Stratum (Plot size: _____)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
Herb Stratum (Plot size: <u>3 ft</u>)			
1. <i>Agrostis alba palustris</i>	60	Y	OBL
2. <i>Phalaris arundinacea</i>	15	N	FACW
3. <i>Poa pratense</i>	10	N	FAC
4. <i>Typha angustifolia</i>	5	N	OBL
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
90 = Total Cover			
Woody Vine Stratum (Plot size: _____)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
_____ = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>65</u>	x 1 = <u>65</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species _____	x 4 = <u>0</u>
UPL species _____	x 5 = <u>0</u>
Column Totals: <u>90</u> (A)	<u>125</u> (B)

Prevalence Index = B/A = 1.39

Hydrophytic Vegetation Indicators:

☒ Dominance Test is >50%

☒ Prevalence Index is ≤3.0¹

____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
6	10 YR 2/1	100					SICL	
10	10 YR 2/1	100	10 YR 5/6	2	C	PL	SIC	
20	10 YR 3/1	100	10 YR 5/6	5	C	PL		
			10 YR 4/2	2	D	PL		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☒ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Iron-Manganese Masses (F12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): _____
 Saturation Present? Yes ☒ No ☐ Depth (inches): 18"
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: ECC - West Area City/County: Elgin Sampling Date: 5-17-11
 Applicant/Owner: Elgin Community College State: IL Sampling Point: 5
 Investigator(s): Patrick VerHalen Section, Township, Range: S21, T41N, R83
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave
 Slope (%): 12% Lat: 42.017201 N Long: 88.328182 W Datum: _____
 Soil Map Unit Name: Drummer Silty Clay Loam NWI or WWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Pond was created for stormwater management	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____				Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>66</u></td> <td>x 1 = <u>66</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>76</u> (A)</td> <td><u>86</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.13</u>	Total % Cover of:	Multiply by:	OBL species <u>66</u>	x 1 = <u>66</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species _____	x 3 = <u>0</u>	FACU species _____	x 4 = <u>0</u>	UPL species _____	x 5 = <u>0</u>	Column Totals: <u>76</u> (A)	<u>86</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>66</u>	x 1 = <u>66</u>																	
FACW species <u>10</u>	x 2 = <u>20</u>																	
FAC species _____	x 3 = <u>0</u>																	
FACU species _____	x 4 = <u>0</u>																	
UPL species _____	x 5 = <u>0</u>																	
Column Totals: <u>76</u> (A)	<u>86</u> (B)																	
_____ = Total Cover																		
Sapling/Shrub Stratum (Plot size: _____)																		
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
_____ = Total Cover																		
Herb Stratum (Plot size: <u>1 m</u>)																		
1. <i>Typha angustifolia</i>	<u>65</u>	<u>Y</u>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <i>Phalaris arundinacea</i>	<u>10</u>	<u>N</u>	<u>FACW</u>															
3. <i>Eleocharis erythropoda</i>	<u>1</u>	<u>N</u>	<u>OBL</u>															
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
<u>76</u> = Total Cover																		
Woody Vine Stratum (Plot size: _____)																		
1. _____																		
2. _____																		
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

Hydrophytic
Vegetation
Present?

Yes ☒ No _____

SOIL

Sampling Point: 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks:

Sample not recorded due to standing water

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☒ No _____ Depth (inches): 2"+
Water Table Present? Yes _____ No _____ Depth (inches): _____
Saturation Present? Yes _____ No _____ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology created from stormwater runoff directed runoff directed to basin.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: ECC - West Area City/County: Elgin Sampling Date: 5-17-11
 Applicant/Owner: Elgin Community College State: IL Sampling Point: 6
 Investigator(s): Patrick VerHalen Section, Township, Range: S21, T41N, R83
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave
 Slope (%): 12% Lat: 42.017201 N Long: 88.328182 W Datum: _____
 Soil Map Unit Name: Drummer Silty Clay Loam NWI or WWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Juniperus Virginiana</u>	<u>1</u>	<u>Y</u>	<u>FACW</u>	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
5. _____	_____	_____	_____	
<u>1</u> = Total Cover				Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)	_____	_____	_____	OBL species <u>25</u> x 1 = <u>25</u>
1. <u>Acer saccharinum</u>	<u>3</u>	<u>Y</u>	<u>FACW</u>	FACW species <u>23</u> x 2 = <u>46</u>
2. _____	_____	_____	_____	FAC species <u>1</u> x 3 = <u>3</u>
3. _____	_____	_____	_____	FACU species <u>3</u> x 4 = <u>12</u>
4. _____	_____	_____	_____	UPL species _____ x 5 = <u>0</u>
5. _____	_____	_____	_____	Column Totals: <u>52</u> (A) <u>86</u> (B)
<u>3</u> = Total Cover				Prevalence Index = B/A = <u>1.65</u>
Herb Stratum (Plot size: <u>1.5 ft</u>)	_____	_____	_____	Hydrophytic Vegetation Indicators:
1. <u>Scirpus atrovirens</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Phalaris arundinacea</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	<u>X</u> Dominance Test is >50%
3. <u>Typha angustifolia</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>	<u>X</u> Prevalence Index is ≤3.0 ¹
4. <u>Aster Simplex</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <u>Taraxicum officinale</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	____ Problematic Hydrophytic Vegetation ¹ (Explain)
6. <u>Dacus carota</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7. <u>Arctium minus</u>	<u>1</u>	<u>N</u>	<u>Fac</u>	
8. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>48</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
2	10yr2/1	100					SICL	
10	10yr2/1	100	10yr5/6	2	L	PL	SIC	
			10yr4/1	2	D	PL		
20	10yr4/1	100	10yr5/6	5	L	PL	SIC	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Gleyed Matrix (S4) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Mucky Mineral (F1) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> 2 cm Muck (A10) | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) | |

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Iron-Manganese Masses (F12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Secondary Indicators (minimum of two required)

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Aquatic Fauna (B13) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input checked="" type="checkbox"/> Saturation (A3) | <input type="checkbox"/> True Aquatic Plants (B14) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input checked="" type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Thin Muck Surface (C7) | <input checked="" type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Gauge or Well Data (D9) | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | <input type="checkbox"/> Other (Explain in Remarks) | |

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 12"+

Water Table Present? Yes ☐ No ☐ Depth (inches): _____

Saturation Present? Yes ☐ No ☐ Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: ECC - West Area City/County: Elgin Sampling Date: 5-17-11
 Applicant/Owner: Elgin Community College State: IL Sampling Point: 7
 Investigator(s): Patrick VerHalen Section, Township, Range: S21, T41N, R83
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave
 Slope (%): 12% Lat: 42.017201 N Long: 88.328182 W Datum: _____
 Soil Map Unit Name: Lorenzo Loam NWI or WWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)														
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
<u>0</u> = Total Cover				Prevalence Index worksheet: <table border="1"> <thead> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> </thead> <tbody> <tr><td>OBL species <u>0</u></td><td>x 1 = <u>0</u></td></tr> <tr><td>FACW species <u>4</u></td><td>x 2 = <u>8</u></td></tr> <tr><td>FAC species <u>80</u></td><td>x 3 = <u>240</u></td></tr> <tr><td>FACU species _____</td><td>x 4 = <u>0</u></td></tr> <tr><td>UPL species _____</td><td>x 5 = <u>0</u></td></tr> <tr><td>Column Totals: <u>84</u> (A)</td><td><u>248</u> (B)</td></tr> </tbody> </table> Prevalence Index = B/A = <u>2.95</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>4</u>	x 2 = <u>8</u>	FAC species <u>80</u>	x 3 = <u>240</u>	FACU species _____	x 4 = <u>0</u>	UPL species _____	x 5 = <u>0</u>	Column Totals: <u>84</u> (A)	<u>248</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>4</u>	x 2 = <u>8</u>																	
FAC species <u>80</u>	x 3 = <u>240</u>																	
FACU species _____	x 4 = <u>0</u>																	
UPL species _____	x 5 = <u>0</u>																	
Column Totals: <u>84</u> (A)	<u>248</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)																		
1. <u>Acer negundo</u>	<u>2</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Acer saccharinum</u>	<u>2</u>	<u>Y</u>	<u>FACW</u>															
3. _____																		
4. _____																		
5. _____																		
<u>4</u> = Total Cover																		
Herb Stratum (Plot size: <u>1.5 ft</u>)				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Galium aparine</u>	<u>35</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Solidago altissima</u>	<u>35</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Taraxacum officinale</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
4. <u>Dacus carota</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
<u>80</u> = Total Cover																		
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>														
1. _____																		
2. _____																		
_____ = Total Cover																		

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
4	10yr2/1	90	10yr3/3	10	L	M	SICL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Iron-Manganese Masses (F12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock/Gravel

Depth (inches): 4-6

Hydric Soil Present? Yes _____ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____
 Water Table Present? Yes _____ No _____ Depth (inches): _____
 Saturation Present? Yes _____ No _____ Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: ECC - West Area City/County: Elgin Sampling Date: 5-17-11
 Applicant/Owner: Elgin Community College State: IL Sampling Point: 10
 Investigator(s): Patrick VerHalen Section, Township, Range: S21, T41N, R83
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave
 Slope (%): 12% Lat: 42.017201 N Long: 88.328182 W Datum: _____
 Soil Map Unit Name: Lorenzo Loam NWI or WWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Hydrology provided by outlet from waters 2.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
0 = Total Cover			
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
0 = Total Cover			
Herb Stratum (Plot size: <u>1 m</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Typha angustifolia</u>	<u>70</u>	<u>Y</u>	<u>OBL</u>
2. <u>Phalaris arundinacea</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
100 = Total Cover			
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
_____ = Total Cover			

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>70</u>	x 1 = <u>70</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species _____	x 3 = <u>0</u>
FACU species _____	x 4 = <u>0</u>
UPL species _____	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>130</u> (B)

Prevalence Index = B/A = 1.30

Hydrophytic Vegetation Indicators:
☒ Dominance Test is >50%
☒ Prevalence Index is ≤3.0¹
 _____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 _____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
14	10yr2/1	100					SIC	
30	10yr2/1	100	5yr 4/6	5	C	PL	SIC	
			10yr4/1	2	D	PL		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Iron-Manganese Masses (F12)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)		
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
---	--

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)				
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)		<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)		<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)		<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)		<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)			
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)			

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
---	--

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: ECC Parking Lot Expansion City/County: Elgin/Kane County Sampling Date: March 20, 2010
 Applicant/Owner: Elgin Community College State: IL Sampling Point: 10
 Investigator(s): Patrick Kelsey Section, Township, Range: S21, T41N, 8E
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): concave
 Slope (%): _____ Lat: 42.017294 N Long: 88.325460 W Datum: _____
 Soil Map Unit Name: Houghton Muck NWI or WWI classification: PEMCD
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____	
Remarks: Area is part of a large marsh that directly abuts an Unnamed Tributary to Otter Creek		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30m</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Acer negundo</u>	5	n	FACW
2. <u>Acer saccharinum</u>	5	n	FACW
3. <u>Populus deltoides</u>	5	n	FAC
4. _____			
5. _____			
	15	= Total Cover	
Sapling/Shrub Stratum (Plot size: <u>10m</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Salix interior</u>	5	n	OBL
2. _____			
3. _____			
4. _____			
5. _____			
	5	= Total Cover	
Herb Stratum (Plot size: <u>0.5m</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Arctium minus</u>	5	n	UPL
2. <u>Solidago altissima</u>	5	n	FACU
3. <u>Phalaris arundinacea</u>	50	y	FACW
4. <u>Solidago gigantea</u>	5	n	FACW
5. <u>Typha angustifolia</u>	10	n	OBL
6. <u>Typha latifolia</u>	25	y	OBL
7. _____			
8. _____			
9. _____			
10. _____			
	100	= Total Cover	
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
		= Total Cover	

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>65</u>	x 2 = <u>130</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>120</u> (A)	<u>230</u> (B)

 Prevalence Index = B/A = 1.92

Hydrophytic Vegetation Indicators:
☒ Dominance Test is >50%
☒ Prevalence Index is ≤3.0¹
 ___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No _____

Remarks: (include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
12	N2.5/1	100					muck
18	N2.5/1	100					sic
36	2.5Y6/1	65					sic
	7.5YR5/6	35					

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input checked="" type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Geomorphic Position (D2)	
<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 12 Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Unnamed Tributary to Otter Creek flows through this wetland complex.